

INTERNATIONAL SEARCH REPORT

ational Application No
PCT/IB2004/003453

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7	F15D1/06	B01F5/06	B01D17/038	B01D17/028	B01D17/04
	B01D45/12	B01D17/02			
	//E21B43/34				

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01F B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 208 136 A (KING, LEONARD T) 17 June 1980 (1980-06-17)	1-4, 6-10,12
A	column 1, line 11 - line 20 column 2, line 46 - line 63 column 3, line 23 - line 38 column 4, line 52 - column 5, line 4 figures 1,6	5,11
X	WO 90/15256 A (AEROSEP SOCIETE ANONYME) 13 December 1990 (1990-12-13)	1-3,5-11
A	page 1, line 4 - line 10 page 4, line 20 - line 26 page 31, line 15 - page 33, line 18 page 37, line 1 - page 40, line 12 page 41, line 13 - line 31 page 44, line 27 - page 45, line 22 figures 10,13	4,12
		-/-

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

3 February 2005

Date of mailing of the international search report

11/02/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Real Cabrera, R

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/003453

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 4208136	A	17-06-1980	NONE			
WO 9015256	A	13-12-1990	AU WO	5738390 A 9015256 A1	07-01-1991 13-12-1990	
US 3860217	A	14-01-1975	CA DD DE FR GB JP JP JP NL SE	989386 A1 111549 A5 2419696 A1 2227041 A1 1437576 A 1113777 C 50002256 A 57004369 B 7404942 A 404992 B	18-05-1976 20-02-1975 21-11-1974 22-11-1974 26-05-1976 16-09-1982 10-01-1975 26-01-1982 29-10-1974 13-11-1978	
US 4307054	A	22-12-1981	FR BE BR CA DD DE ES GB HU IT JP JP JP LU NL US	2412627 A1 872968 A1 7808363 A 1115473 A1 141171 A5 2855714 A1 476246 A1 2010739 A ,B 178086 B 1102432 B 1466746 C 54093116 A 63015369 B 80696 A1 7811916 A 4308004 A	20-07-1979 21-06-1979 07-08-1979 05-01-1982 16-04-1980 28-06-1979 01-06-1979 04-07-1979 28-03-1982 07-10-1985 10-11-1988 24-07-1979 04-04-1988 20-07-1979 26-06-1979 29-12-1981	
US 4396180	A	02-08-1983	IT DE FR GB SU	1129126 B 3126849 A1 2487854 A1 2080692 A ,B 1058491 A3	04-06-1986 15-04-1982 05-02-1982 10-02-1982 30-11-1983	